

We Claim:

1. An oral cleaning device comprising:

a reservoir body having a lower aperture and a upper aperture;

a manual operable removable pump attached to the reservoir body in communication with the lower aperture, the removable pump when removed from the reservoir body permits a user to fill the reservoir body with a liquid, and when the removable pump is attached to the reservoir body containing the liquid, the manual operation of said removable pump permits a user to increase pressure within the reservoir body such that the liquid contained in the reservoir body becomes pressurized liquid;

a neck and head assembly attached to the reservoir body in communication with the upper aperture, and having an outlet aperture for expelling pressurized liquid contained in the reservoir body;

a mechanism in communication with the neck and head assembly and the reservoir body for controlling the flow of pressurized liquid from the reservoir body to the outlet aperture, thereby controlling the flow of pressurized liquid out of the device; and

a flossing head secured to the neck/head assembly that includes a piece of flossing material that is supported over the outlet aperture such that expelled pressurized liquid flows over said piece of flossing material.

2. The device of Claim 1, wherein the flossing head assembly includes a pair of arms extending in an arc from a center region creating a cavity therebetween, the pair of arms having the means to support the piece of flossing material over said cavity.

3. The device of Claim 2, wherein the flossing head assembly has a grooved region sized to removably support the center region, whereby the center region and thus the pair of arms with the flossing material is removable from the flossing head assembly.

4. An oral cleaning device having a means for dispensing pressurized fluid out of an aperture defined by the device, the improvement comprising a flossing head assembly that includes a piece of flossing material that is supported over the aperture such that dispensed pressurized fluid runs over said piece of flossing material.

5. The device of Claim 4, wherein the flossing head assembly includes a pair of arms extending in an arc from a center region creating a cavity therebetween, the pair of arms having the means to support the piece of flossing material over said cavity.

6. The device of Claim 5, wherein the flossing head assembly has a grooved region sized to removably support the center region, whereby the center region and thus the pair of arms with the flossing material is removable from the flossing head assembly.

7. A flossing head assembly having at least an upper portion, the assembly comprising:
a center region having a pair of arms extending therefrom to create a cavity region between said pair of arms, the pair of arms supporting a piece of flossing material over said cavity; and

a grooved region in the upper portion sized to removably support the center region.

8. An oral cleaning device comprising:

a reservoir body having a lower aperture and an upper aperture;

a manual operable removable pump attached to the reservoir body in communication with the lower aperture, the removable pump when removed from the reservoir body permits a user to fill the reservoir body with a liquid, and when the removable pump is attached to the reservoir body containing the liquid, the manual operation of said removable pump permits a user to increase pressure within the reservoir body such that the liquid contained in the reservoir body becomes pressurized liquid;

a neck and head assembly attached to the reservoir body in communication with the upper aperture, and having an outlet aperture for expelling pressurized liquid contained in the reservoir body;

a mechanism in communication with the neck and head assembly and the reservoir body for controlling the flow of pressurized liquid from the reservoir body to the outlet aperture, thereby controlling the flow of pressurized liquid out of the device; and

a lever secured to the mechanism and which when pushed inwardly towards the reservoir body permits the flow of pressurized liquid from the reservoir body to the outlet aperture and when released prevents the flow of pressurized liquid from the reservoir body to the outlet aperture.

9. A reservoir used in combination with an apparatus for dispensing a fluid, the reservoir includes a tube positioned in the reservoir and having an end positioned within the reservoir for permitting fluid contained within the reservoir to release under pressure through the tube and out of the reservoir and wherein during the release of fluid through the tube, there is sufficient pressure to cause the end of the tube to become vacuum sealed against an internal wall defined by the reservoir the improvement comprising an end cap positioned over the end of

the tube that includes a means to prevent the tube from becoming vacuumed sealed against the internal wall or the reservoir.

10. The improvement of Claim 9, wherein the means to prevent the tube from becoming vacuumed sealed against the internal wall or the reservoir is defined by at least one radial channel that emanate from a centered aperture defined by the end cap and that travels along the end cap to prevent the tube from becoming vacuumed sealed against the internal portion or the reservoir.

11. The improvement of Claim 9, wherein the means to prevent the tube from becoming vacuumed sealed against the internal wall or the reservoir is defined by at least one projecting radial rib to define a raised portion that runs along the end cap to a centered aperture in the end cap.

12. The improvement of Claim 9, wherein the means to prevent the tube from becoming vacuumed sealed against the internal wall or the reservoir is defined by projecting radial ribs to define grooved channels between the ribs that run along the end cap to the centered aperture to prevent the tube from becoming vacuumed sealed against the internal portion or the reservoir.

13. For use with a manual operable removable pump attached to a refillable reservoir in communication with an aperture defined by said refillable reservoir, the manual operation of said removable pump when said removable pump is attached to the refillable reservoir permits a user to

increase pressure within the reservoir body such that a fluid contained in the reservoir body becomes pressurized, the improvement comprising:

- a threaded end defined about the aperture of the refillable reservoir;

- a reservoir cap capable of being threaded onto the threaded end and secured to a pump cylinder defined by the manual operable removable pump;

- a pump handle secured to a pump piston defined by the manual operable removable pump and being slidably engaged within the pump cylinder; and

- a locking mechanism defined between an outside portion of the reservoir cap and a corresponding inside portion of the pump handle, such that when said outside portion of the reservoir cap is positioned against said corresponding inside portion of the pump handle, the reservoir cap is prevented from moving relative to the pump handle.

14. The improvement of Claim 13, wherein the locking mechanism is further defined as a plurality of tabs extending from the outside portion of the reservoir cap and a plurality of corresponding ribs positioned about the inside portion of the pump handle.

15. An oral cleaning device having a body and a neck/head assembly, the device comprising:

- a reservoir contained within the body and having an aperture for filling the reservoir with a fluid;

- a replaceable cartridge of compressed gas contained within the body;

- a first valve mechanism for selectively pressurizing the fluid within the reservoir with compressed gas from the replaceable cartridge; and

a second valve mechanism for selectively permitting the pressurized fluid within the reservoir to release out of an opening defined in the neck/head assembly.

16. The oral cleaning device of Claim 15 further comprising:

a tube positioned in the reservoir and having one end positioned in close proximity to a bottom portion defined by the reservoir and a second end in fluid communication with the second valve mechanism, the second valve mechanism is further in fluid communication with a channel defined in the neck/head assembly, the channel is in fluid communication with the opening defined in the neck/head assembly, whereby when the second valve mechanism is selectively opened pressurized fluid in the reservoir travels through the tube and channel and out the opening defined in the neck/head assembly.

17. The oral cleaning device of Claim 16 further comprising :

a pneumatic motor operably connected to the replaceable cartridge of compressed gas, the pneumatic motor utilizes compressed gas to rotate a shaft extending outwardly from the pneumatic motor, the shaft is rotatably contained in the neck; and

a plurality of bristles rotatably secured to the neck/head assembly and meshed to the shaft such that the plurality of bristles move, when the shaft is rotating.

18. An oral cleaning device having a body and a neck/head assembly, the device comprising:

a replaceable cartridge of compressed gas contained within the body;

a pneumatic motor operably connected to the replaceable cartridge of compressed gas, the pneumatic motor utilizes compressed gas to rotate a shaft extending outwardly from the pneumatic motor, the shaft is rotatably contained in the neck;

a second valve mechanism for selectively permitting the shaft to rotate; and

a plurality of bristles rotatably secured to the neck/head assembly and meshed to the shaft such that the plurality of bristles move, when the shaft is rotating.

19. An oral cleaning device comprising:

a reservoir body having a lower aperture and a upper aperture;

a manual operable removable pump attached to the reservoir body in communication with the lower aperture, the removable pump when removed from the reservoir body permits a user to fill the reservoir body with a liquid, and when the removable pump is attached to the reservoir body containing the liquid, the manual operation of said removable pump permits a user to increase pressure within the reservoir body such that the liquid contained in the reservoir body becomes pressurized liquid;

the manual operable removable pump includes a piston secured to an end of a pump shaft that is slidably engaged within a cylinder, such that when the piston is moved inwardly towards a top portion defined by the cylinder air is forwarded into the reservoir body, the manual operable removable pump includes a means to release back pressure defined by having channels positioned in the top portion defined by the cylinder such that when the piston moves into the top portion of the cylinder, air above the piston seeps about the piston and vents to atmosphere;

a neck and head assembly attached to the reservoir body in communication with the upper aperture, and having an outlet aperture for expelling pressurized liquid contained in the reservoir body;

a mechanism in communication with the neck and head assembly and the reservoir body for controlling the flow of pressurized liquid from the reservoir body to the outlet aperture, thereby controlling the flow of pressurized liquid out of the device, the mechanism having an inlet positioned within the reservoir body; and

a tube entirely positioned within the reservoir body, having one end secured to the inlet and another end opened to the reservoir body to directly convey pressurized fluid contained within the reservoir body to flow through the tube and out of the reservoir.

20. The device of Claim 19 further comprising an end cap positioned over the end of the tube and the end cap includes at least one projecting radial rib to define a raised portion that runs along the end cap to a centered aperture in the end cap such that during the release of fluid through the tube, the end cap prevents the tube from becoming vacuumed sealed against an internal wall defined by the reservoir body.

21. The device of Claim 19 further comprising an end cap positioned over the end of the tube and the end cap includes grooved channels that run along the end cap to a centered aperture in the end cap such that during the release of fluid through the tube, the end cap prevents the tube from becoming vacuumed sealed against an internal wall defined by the reservoir body.

22. The device of Claim 19 further comprising a lever secured to the mechanism and which when pushed inwardly towards the reservoir body permits the flow of pressurized liquid from the reservoir body to the outlet aperture and when released prevents the flow of pressurized liquid from the reservoir body to the outlet aperture.

23. The device of Claim 19 wherein the neck and head assembly includes a diverging nozzle that mists pressurized liquid outwardly from the neck and head assembly.

24. The device of Claim 19 wherein the neck and head assembly includes a flossing head that includes a piece of flossing material that is supported over the outlet aperture such that expelled pressurized liquid flows over said piece of flossing material.

25. The device of Claim 24, wherein the flossing head assembly includes a pair of arms extending in an arc from a center region creating a cavity therebetween, the pair of arms having the means to support the piece of flossing material over said cavity.

26. The device of Claim 25, wherein the flossing head assembly has a grooved region sized to removably support the center region, whereby the center region and thus the pair of arms with the flossing material is removable from the flossing head assembly.

27. The device of Claim 19, wherein the reservoir includes a threaded top aperture that threadably attaches to the mechanism and a threaded bottom aperture that threadably attaches to the pump mechanism such that the reservoir body is replaceable.